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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/607,373	06/26/2003	Jeffery H. Banning	D/A3152	5161

25453 7590 09/14/2004

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EXAMINER

AULAKH, CHARANJIT

ART UNIT PAPER NUMBER

1625

DATE MAILED: 09/14/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

10/607,373

Applicant(s)

BANNING ET AL.

Examiner

Charanjit S. Aulakh

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-105 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-105 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 3.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_.

### DETAILED ACTION

1. Claims 1-105 are pending in the application.

#### ***Specification***

2. The abstract of the disclosure is objected to because it is too long. Correction is required. See MPEP § 608.01(b).

#### ***Claim Rejections - 35 USC § 112***

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claims 1-105 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claims 1-105, the point of attachment of metal to chromogen moieties is not defined.

Is it attached to the hetero ring atom Y, directly to the carbon atom of aryl rings or substituted carbon, nitrogen or oxygen atom etc ?

In claims 1, 10 and 105, the term ---metal-containing moiety--- is indefinite since this moiety is not defined and furthermore, the point of attachment of metal to the chromogen moieties is not defined.

In claims 1, 10 and 105, where variables R1 and R2 or R3 and R4 are joined together to form a ring, the size of the ring, number and types of heteroatoms present in the ring are not defined.

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In claims 1, 10 and 105, for the values of variables R1-R4, the term ---wherein R1, R2, R3 and R4 can each be joined to a phenyl ring in the central structure---- is vague and indefinite since its meaning is not clear.

In claims 1, 10 and 105, for the values of variables R5-R7, the term ---wherein R5, R6, and R7 can each be joined to a phenyl ring in the central structure---- is vague and indefinite since its meaning is not clear.

In claims 1, 10 and 105, the applicants use same variable Y to define positive charge as well as to define it as a C, O, S or N atom in the tricyclic ring. It is confusing. The applicants are suggested to use separate letters. Also, variable z is listed twice in the first formula on page 202, once to represent the number of chromogen moieties and in addition, it is also listed with anion A. Is it same or different z?

Claims 29 and 30 recite the limitation "heteroatom" in claim 20. There is insufficient antecedent basis for this limitation in the claim.

Claims 34 and 35 recite the limitation "heteroatom" in claim 31. There is insufficient antecedent basis for this limitation in the claim.

Claims 39 and 40 recite the limitation "heteroatom" in claim 36. There is insufficient antecedent basis for this limitation in the claim.

Claims 44 and 45 recite the limitation "heteroatom" in claim 41. There is insufficient antecedent basis for this limitation in the claim.

In claim 48, it is not clear which phenyl ring is being referred here.

Claim 88 is substantial duplicate of claim 86. It appears that claim 88 should depend upon claim 87. An appropriate correction is required.

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***Allowable Subject Matter***

5. The following is a statement of reasons for the indication of allowable subject matter:

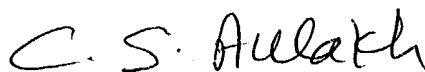
The instant compounds directed to metal attached chromogen moieties are allowable over the prior art since they are neither disclosed nor obvious over the prior art. In the prior art, Nagai ( U.S. Patent no. 5,514,208 ) discloses similar compounds ( see columns 5-8 ) when Y represents O in the instant claims. However, the compounds of Nagai lack metal ions attached to these compounds and furthermore, there is no teaching, suggestion or motivation in the prior art to modify the compounds of Nagai to prepare the instant compounds.

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Charanjit S. Aulakh whose telephone number is (571)272-0678. The examiner can normally be reached on Monday through Friday, 8:30 A.M. to 5:00 P.M..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Cecilia Tsang can be reached on (571)272-0562. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Charanjit S. Aulakh  
Primary Examiner  
Art Unit 1625